

Mr. Corry Patton
Tinplate Partners International, Inc.
700 Chase Street
Gary, Indiana 46404

Re: 089-14247-00148
First Minor Revision to
FESOP 089-11501-00148

Dear Mr. Patton:

Tinplate Partners International, Inc. was issued a permit on March 2, 2000 for a stationary sheet metal coating and printing operation. A letter requesting changes to this permit was received on April 4, 2001. Pursuant to the provisions of 326 IAC 2-8-11.1 a minor permit revision to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of adding three additional coating lines and one additional printing line, identical to the existing coating and printing lines. The limited potential to emit VOC and HAP for the entire source will not change, because the limits taken on VOC and HAP in the existing permit will remain intact and will include the new facilities. In addition, an improved efficiency for OX-1, based on a stack test performed in 1998, was incorporated into the permit.

The following construction conditions are applicable to the proposed project:

1. General Construction Conditions
The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the minor permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. Pursuant to Contract No. A305-0-00-36, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Kate Huckelbridge, ERG, P.O. Box 2010, Morrisville, North Carolina 27560, or call (919) 468-7902 to speak directly to Ms. Huckelbridge. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027, press 0 and ask for Duane Van Laningham, or extension 3-6878, or dial (317) 233-6878.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments

ERG/KH

cc: File - Lake County
U.S. EPA, Region V
Lake County Health Department
Gary Department of Environmental Affairs
Northwest Regional Office
Air Compliance Section Inspector - Ramesh Tejuja
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

**FEDERALLY ENFORCEABLE STATE
OPERATING PERMIT (FESOP)
OFFICE OF AIR QUALITY
and DIVISION OF AIR POLLUTION CONTROL**

**Tinplate Partners International, Inc.
700 Chase Street
Gary, Indiana 46404**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F089-11501-00148	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: March 2, 2000

First Administrative Amendment 089-13702-00148 Pages Affected: 4,5,27,28,29,31	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date:

First Minor Permit Revision 089-14247-00148 Pages Affected: 5, 6, 6a, 30, 30a, 31, 31a, 32, 32a, 38, 39, 40	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: May 18, 2001

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) and Division of Air Pollution Control. The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary sheet metal coating and printing operation.

Authorized individual: Corry Patton
Source Address: 700 Chase Street, Gary, Indiana 46404
Mailing Address: 700 Chase Street, Gary, Indiana 46404
Phone Number: 219-949-3807
SIC Code: 3312, 3328, 3329, 3231
County Location: Lake County
County Status: Severe Nonattainment for ozone
Primary Nonattainment for sulfur dioxide (SO₂)
Moderate Nonattainment for PM-10
Attainment for all other criteria pollutants
Source Status: Federally Enforceable State Operating Permit (FESOP)
Minor Source, under PSD and Emission Offset Rules;

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

- (a) one coating line (CL-1), coating a maximum of 120 metal sheets per minute, consisting of one (1) sheet feeder, one (1) impingement burner (IB-1), one (1) roll coater, one (1) drying oven (DO-1), one (1) natural gas-fired thermal oxidizer (OX-1) for VOC control, with a maximum supplementary fuel heat input rate of 5.7 million British thermal units (MMBtu) per hour, one (1) cooldown zone, one (1) waxer, one (1) stacker, and one (1) bundle turner. The impingement burner exhausts through one (1) stack, EP-1. The roll coater exhausts through the thermal oxidizer, which exhausts through one (1) stack, EP-2. The drying oven exhausts through one (1) stack, EP-15. The cooldown zone exhausts through four (4) stacks, EP-3, EP-12, EP-13, and EP-14. The maximum metal sheet dimensions are 32.4 inches by 39.9 inches;
- (b) one coating line (CL-2), coating a maximum of 110 metal sheets per minute, consisting of one (1) sheet feeder, one (1) roll coater, one (1) drying oven (DO-2), one (1) natural gas-fired thermal oxidizer (OX-2) for VOC control, with a maximum supplementary fuel heat input rate of 11.4 million British thermal units (MMBtu) per hour, one (1) cooldown zone, one (1) waxer, one (1) stacker, and one (1) bundle turner. The roll coater exhausts through the thermal oxidizer, which exhausts through one (1) stack, EP-4. The cooldown zone exhausts through one (1) stack, EP-5. The maximum metal sheet dimensions are 32.4 inches by 39.3 inches;

- (c) one coating line (CL-3), coating a maximum of 110 metal sheets per minute, consisting of one (1) sheet feeder, one (1) roll coater, one (1) drying oven (DO-3), one (1) natural gas-fired thermal oxidizer (OX-2) for VOC control, with a maximum supplementary fuel heat input rate of 11.4 million British thermal units (MMBtu) per hour, one (1) cooldown zone, one (1) waxer, and one (1) stacker, and one (1) bundle turner. The roll coater exhausts through the thermal oxidizer which exhausts through one (1) stack, EP-4. The cooldown zone exhausts through one (1) stack, EP-7. The maximum metal sheet dimensions are 32.4 inches by 39.3 inches; and
- (d) one (1) heatset offset lithographic printing press (PL-1), with a maximum line speed of 233.75 feet per minute and a maximum printing width of 45 inches, exhausting through general ventilation.
- (e) one coating line (CL-4), coating a maximum of 110 metal sheets per minute, consisting of one (1) sheet feeder, one (1) roll coater, one (1) drying oven (DO-4), one (1) natural gas-fired thermal oxidizer (OX-3) for VOC control, with a maximum supplementary fuel heat input rate of 5.7 million British thermal units (MMBtu) per hour, one (1) cooldown zone, one (1) waxer, one (1) stacker, and one (1) bundle turner. The roll coater exhausts through the thermal oxidizer, which exhausts through one (1) stack, EP-16. The cooldown zone exhausts through one (1) stack, EP-17. The maximum metal sheet dimensions are 32.4 inches by 39.3 inches;
- (f) one coating line (CL-5), coating a maximum of 110 metal sheets per minute, consisting of one (1) sheet feeder, one (1) roll coater, one (1) drying oven (DO-5), one (1) natural gas-fired thermal oxidizer (OX-4) for VOC control, with a maximum supplementary fuel heat input rate of 5.7 million British thermal units (MMBtu) per hour, one (1) cooldown zone, one (1) waxer, and one (1) stacker, and one (1) bundle turner. The roll coater exhausts through the thermal oxidizer which exhausts through one (1) stack, EP-18. The cooldown zone exhausts through one (1) stack, EP-19. The maximum metal sheet dimensions are 32.4 inches by 39.3 inches; and
- (g) one coating line (CL-6), coating a maximum of 110 metal sheets per minute, consisting of one (1) sheet feeder, one (1) roll coater, one (1) drying oven (DO-6), one (1) natural gas-fired thermal oxidizer (OX-6) for VOC control, with a maximum supplementary fuel heat input rate of 5.7 million British thermal units (MMBtu) per hour, one (1) cooldown zone, one (1) waxer, and one (1) stacker, and one (1) bundle turner. The roll coater exhausts through the thermal oxidizer which exhausts through one (1) stack, EP-20. The cooldown zone exhausts through one (1) stack, EP-21. The maximum metal sheet dimensions are 32.4 inches by 39.3 inches; and
- (h) one (1) heatset offset lithographic printing press (PL-2), with a maximum line speed of 233.75 feet per minute and a maximum printing width of 45 inches, exhausting through general ventilation.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour:
 - (1) one (1) impingement burner (IB-1), with a maximum heat input rating of 0.2 MMBtu per hour, exhausting through one (1) stack, EP-1; and

- (2) two (2) drying ovens (DO-2 and DO-3), each with a maximum heat input rating of 1.0 MMBtu per hour.
- (b) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 Btu/hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 Btu/hour.
- (c) Combustion source flame safety purging on startup.
- (d) The following VOC and HAP storage containers:
 - (1) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.
 - (2) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (a) Cleaners and solvents having a vapor pressure equal to or less than 2 kPa; 15 mmHg; or 0.3 psi measured at 38 degrees C (100°F) or having a vapor pressure equal to or less than 0.7 kPa; 5 mmHg; or 0.1 psi measured at 20°C (68°F); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.
- (b) The following equipment related to manufacturing activities not resulting in the emissions of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
- (c) Paved and unpaved roads and parking lots with public access.
- (d) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fuel handling equipment.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

- (a) one coating line (CL-1), coating a maximum of 120 metal sheets per minute, consisting of one (1) sheet feeder, one (1) impingement burner (IB-1), one (1) roll coater, one (1) drying oven (DO-1), one (1) natural gas-fired thermal oxidizer (OX-1) for VOC control, with a maximum supplementary fuel heat input rate of 5.7 million British thermal units (MMBtu) per hour, one (1) cooldown zone, one (1) waxer, one (1) stacker, and one (1) bundle turner. The impingement burner exhausts through one (1) stack, EP-1. The roll coater exhausts through the thermal oxidizer, which exhausts through one (1) stack, EP-2. The drying oven exhausts through one (1) stack, EP-15. The cooldown zone exhausts through four (4) stacks, EP-3, EP-12, EP-13, and EP-14. The maximum metal sheet dimensions are 32.4 inches by 39.9 inches;
- (b) one coating line (CL-2), coating a maximum of 110 metal sheets per minute, consisting of one (1) sheet feeder, one (1) roll coater, one (1) drying oven (DO-2), one (1) natural gas-fired thermal oxidizer (OX-2) for VOC control, with a maximum supplementary fuel heat input rate of 11.4 million British thermal units (MMBtu) per hour, one (1) cooldown zone, one (1) waxer, one (1) stacker, and one (1) bundle turner. The roll coater exhausts through the thermal oxidizer, which exhausts through one (1) stack, EP-4. The cooldown zone exhausts through one (1) stack, EP-5. The maximum metal sheet dimensions are 32.4 inches by 39.3 inches;
- (c) one coating line (CL-3), coating a maximum of 110 metal sheets per minute, consisting of one (1) sheet feeder, one (1) roll coater, one (1) drying oven (DO-3), one (1) natural gas-fired thermal oxidizer (OX-2) for VOC control, with a maximum supplementary fuel heat input rate of 11.4 million British thermal units (MMBtu) per hour, one (1) cooldown zone, one (1) waxer, and one (1) stacker, and one (1) bundle turner. The roll coater exhausts through the thermal oxidizer which exhausts through one (1) stack, EP-4. The cooldown zone exhausts through one (1) stack, EP-7. The maximum metal sheet dimensions are 32.4 inches by 39.3 inches; and
- (d) one (1) heatset offset lithographic printing press (PL-1), with a maximum line speed of 233.75 feet per minute and a maximum printing width of 45 inches, exhausting through general ventilation.
- (e) one coating line (CL-4), coating a maximum of 110 metal sheets per minute, consisting of one (1) sheet feeder, one (1) roll coater, one (1) drying oven (DO-4), one (1) natural gas-fired thermal oxidizer (OX-3) for VOC control, with a maximum supplementary fuel heat input rate of 5.7 million British thermal units (MMBtu) per hour, one (1) cooldown zone, one (1) waxer, one (1) stacker, and one (1) bundle turner. The roll coater exhausts through the thermal oxidizer, which exhausts through one (1) stack, EP-16. The cooldown zone exhausts through one (1) stack, EP-17. The maximum metal sheet dimensions are 32.4 inches by 39.3 inches;

Facility Description [326 IAC 2-8-4(10)] (Continued):

- (f) one coating line (CL-5), coating a maximum of 110 metal sheets per minute, consisting of one (1) sheet feeder, one (1) roll coater, one (1) drying oven (DO-5), one (1) natural gas-fired thermal oxidizer (OX-4) for VOC control, with a maximum supplementary fuel heat input rate of 5.7 million British thermal units (MMBtu) per hour, one (1) cooldown zone, one (1) waxer, and one (1) stacker, and one (1) bundle turner. The roll coater exhausts through the thermal oxidizer which exhausts through one (1) stack, EP-18. The cooldown zone exhausts through one (1) stack, EP-19. The maximum metal sheet dimensions are 32.4 inches by 39.3 inches; and
- (g) one coating line (CL-6), coating a maximum of 110 metal sheets per minute, consisting of one (1) sheet feeder, one (1) roll coater, one (1) drying oven (DO-6), one (1) natural gas-fired thermal oxidizer (OX-6) for VOC control, with a maximum supplementary fuel heat input rate of 5.7 million British thermal units (MMBtu) per hour, one (1) cooldown zone, one (1) waxer, and one (1) stacker, and one (1) bundle turner. The roll coater exhausts through the thermal oxidizer which exhausts through one (1) stack, EP-20. The cooldown zone exhausts through one (1) stack, EP-21. The maximum metal sheet dimensions are 32.4 inches by 39.3 inches; and
- (h) one (1) heatset offset lithographic printing press (PL-2), with a maximum line speed of 233.75 feet per minute and a maximum printing width of 45 inches, exhausting through general ventilation.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-3]

- (a) Pursuant to 326 IAC 8-2-3 (Can Coating Operations), no owner or operator of a can coating line subject to this section, may cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of two and eight-tenths (2.8) pounds per gallon excluding water, delivered to the coating applicator from sheet basecoat (interior and exterior) and overvarnish coating lines. This limitation applies to the six (6) coating lines listed above (CL-1, CL-2, CL-3, CL-4, CL-5, and CL-6).

D.1.2 FESOP Limit [326 IAC 2-8]

- (a) The input of VOC to the six (6) coating lines (CL-1, CL-2, CL-3, CL-4, CL-5, and CL-6) and the printing presses (PL-1 and PL-2), including coatings, dilution solvents, and cleaning solvents shall not exceed 494.7 tons per twelve (12) consecutive month period, rolled on a monthly basis. For every ton of VOC used in CL-1, the total usage limit shall be reduced by 0.014 tons, and for every ton of VOC used in CL-2, CL-3, CL-4, CL-5, or CL-6, the total usage limit shall be reduced by 1.0 tons. This usage limitation will then be equivalent to a VOC emission limitation of 24.44 tons per

year. This usage limit is required to limit the source wide potential to emit of VOC to less than 25 tons per year. Compliance with this limit makes 326 IAC 2-3 (Emission Offset) and 326 IAC 2-7 (Part 70 Permit Program) not applicable.

- (b) The input of any single HAP and any combination of HAPs to the six (6) coating lines (CL-1, CL-2, CL-3, CL-4, CL-5, and CL-6) and the printing presses (PL-1 and PL-2), including coatings, dilution solvents, and cleaning solvents shall not exceed 200.4 and 500.8 tons per twelve (12) consecutive month period, rolled on a monthly basis, respectively. For every ton of HAP used in CL-1, the total usage limit shall be reduced by 0.014 tons, and for every ton of HAP used in CL-2, CL-3, CL-4, CL-5 or CL-6, the total usage limit shall be reduced by 1.0 tons. This usage limitation will then be equivalent to a single HAP emission limitation of 9.9 tons per year and a total HAP emission limitation of 24.74 tons per year. This usage limit is required to limit the source wide potential to emit of any single HAP and any combination of HAPs to less than 10 and 25 tons per year, respectively. Compliance with this limit makes 326 IAC 2-7 (Part 70 Permit Program) not applicable.

D.1.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Compliance Determination Requirements

D.1.4 Testing Requirements [326 IAC 2-8-5(a)(1), (4)][326 IAC 2-1.1-11]

During the period between 12 and 18 months after issuance of this permit, the Permittee shall perform VOC testing on the five (5) oxidizers (OX-1, OX-2, OX-3, OX-4, and OX-5) to determine control efficiency and the operating parameters necessary to maintain 95.06% overall control efficiency, utilizing methods as listed in 326 IAC 8-1-4 (Testing Procedures), or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

D.1.5 Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitations contained in Conditions D.1.1 and D.1.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAQ, and Division of Air Pollution Control reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.1.6 VOC Emissions

Compliance with Condition D.1.2 shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound usage for the most recent twelve (12) month period.

D.1.7 Volatile Organic Compounds (VOC)

- (a) The one (1) thermal oxidizer (OX-1) shall be kept in operation at all times that the one (1) coating line CL-1 is in operation and shall maintain an overall control efficiency of 99.93%. This efficiency exceeds the minimum overall control efficiency required by the rule 326 IAC 8-1-2(c) to comply with 326 IAC 8-2-3.

- (b) Pursuant to CP 089-2298-00148, issued June 17, 1992, the one (1) oxidizer (OX-2) shall be kept in operation at all times that the two (2) coating lines (CL-2 and CL-3) are in operation and shall maintain an overall control efficiency of 95.06%. This efficiency exceeds the minimum overall control efficiency required by the rule 326 IAC 8-1-2(c) to comply with 326 IAC 8-2-3.
- (c) The three (3) thermal oxidizers (OX-3, OX-4, and OX-5) shall be kept in operation at all times that the three (3) coating lines (CL-4, CL-5, and CL-6) are in operation and each shall maintain an overall control efficiency of 95.06%. This efficiency exceeds the minimum overall control efficiency required by the rule 326 IAC 8-1-2(c) to comply with 326 IAC 8-2-3.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.8 Volatile Organic Compound and Hazardous Air Pollutant Control

- (a) When operating, the following conditions shall apply to the five (5) oxidizers:
 - (1) the one (1) thermal oxidizer, identified as OX-1, shall maintain a minimum operating temperature of 1300°F and a minimum air flow rate of 9,600 acfm, or a

temperature, fan amperage, and duct velocity determined in the most recent compliance stack tests to maintain an overall control efficiency of 99.93%; and

- (2) the four (4) oxidizers, identified as OX-2, OX-3, OX-4, and OX-5, shall maintain a minimum operating temperature of 1300°F and minimum air flow rates of 8,500 acfm when one (1) coating line is in operation and 17,000 acfm when both coating lines are in operation, or a temperature, fan amperage, and duct velocity determined in the most recent compliance stack tests to maintain an overall control efficiency of 95.06%.
- (b) The temperature of the burner of each of the oxidizers shall be continuously monitored and recorded whenever any of the facilities are in operation.
- (c) Compliance with this condition shall satisfy the requirements of 326 IAC 8-2-3.
- (d) Pursuant to 326 IAC 8-1-2(c), the minimum overall control efficiency required for the five (5) oxidizers controlling VOC emissions from the six (6) coating lines necessary to comply with the VOC content limit of 2.8 pounds per gallon excluding water is calculated as follows:

$$O = \frac{V - E}{V} \times 100$$

where: O = Equivalent percent overall control efficiency of the capture system and control device.
V = The actual VOC content of the coating in pounds of VOC per gallon of coating solids as applied.
E = Equivalent emission limit in pounds of VOC per gallon of coating solids as applied.

E is calculated using the following formula:

$$E = \frac{L}{1 - L/D}$$

where: L = Applicable 326 IAC 8-2-3 emission limit in pounds of VOC per gallon of coating.
D = Density of VOC in coating in pounds per gallon of VOC. A solvent density of 7.36 pounds of VOC per gallon of coating shall be used to determine equivalent pounds of VOC per gallon of coating solids for the applicable emission limit.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.9 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.1 and D.1.2, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with

the VOC and HAP usage limits and/or the VOC and HAP emission limits established in Condition D.1.1 and D.1.2.

- (1) The amount, and VOC and HAP content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
and DIVISION OF AIR POLLUTION CONTROL**

FESOP Quarterly Report

Source Name: Tinplate Partners International, Inc.
Source Address: 700 Chase Street, Gary, Indiana 46404
Mailing Address: 700 Chase Street, Gary, Indiana 46404
FESOP No.: F089-11501-00148
Facility: Six (6) coating lines (CL-1, CL-2, CL-3, CL-4, CL-5, and CL-6) and printing presses (PL-1 and PL-2)
Parameter: VOC Usage
Limit: The input of VOC to the six (6) coating lines (CL-1, CL-2, CL-3, CL-4, CL-5, and CL-6) and the printing presses (PL-1 and PL-2), including coatings, dilution solvents, and cleaning solvents shall not exceed 494.7 tons per twelve (12) consecutive month period, rolled on a monthly basis. For every ton of VOC used in CL-1, the total usage limit shall be reduced by 0.014 tons, and for every ton of VOC used in CL-2, CL-3, CL-4, CL-5, or CL-6, the total usage limit shall be reduced by 1.0 tons. This usage limitation will then be equivalent to a VOC emission limitation of 24.44 tons per year.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	VOC Usage This Month (tons)	VOC Usage Previous 11 Months (tons)	12 Month Total VOC Usage (tons)

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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FESOP Quarterly Report

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Source Address: 700 Chase Street, Gary, Indiana 46404
Mailing Address: 700 Chase Street, Gary, Indiana 46404
FESOP No.: F089-11501-00148
Facility: Six (6) coating lines (CL-1, CL-2, CL-3, CL-4, CL-5, and CL-6) and printing presses (PL-1 and PL-2)
Parameter: Single HAP Usage
Limit: The input of any single HAP to the six (6) coating lines (CL-1, CL-2, CL-3, CL-4, CL-5, and CL-6) and the printing presses (PL-1 and PL-2), including coatings, dilution solvents, and cleaning solvents shall not exceed 200.4 tons per twelve (12) consecutive month period, rolled on a monthly basis. For every ton of HAP used in CL-1, the total usage limit shall be reduced by 0.014 tons, and for every ton of HAP used in CL-2, CL-3, CL-4, CL-5 or CL-6, the total usage limit shall be reduced by 1.0 tons. This usage limitation will then be equivalent to a single HAP emission limitation of 9.9 tons per year.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	Single HAP Usage This Month (tons)	Single HAP Usage Previous 11 Months (tons)	12 Month Total Single HAP Usage (tons)

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
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FESOP Quarterly Report

Source Name: Tinplate Partners International, Inc.
Source Address: 700 Chase Street, Gary, Indiana 46404
Mailing Address: 700 Chase Street, Gary, Indiana 46404
FESOP No.: F089-11501-00148
Facility: Six (6) coating lines (CL-1, CL-2, CL-3, CL-4, CL-5, and CL-6) and printing presses (PL-1 and PL-2)
Parameter: Total HAP Usage
Limit: The input of any combination of HAPs to the three (3) coating lines (CL-1, CL-2, CL-3, CL-4, CL-5, and CL-6) and the printing presses (PL-1 and PL-2), including coatings, dilution solvents, and cleaning solvents shall not exceed 500.8 tons per twelve (12) consecutive month period, rolled on a monthly basis. For every ton of HAP used in CL-1, the total usage limit shall be reduced by 0.014 tons, and for every ton of HAP used in CL-2, CL-3, CL-4, CL-5 or CL-6, the total usage limit shall be reduced by 1.0 tons. This usage limitation will then be equivalent to a total HAP emission limitation of 24.74 tons per year.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	Total HAP Usage This Month (tons)	Total HAP Usage Previous 11 Months (tons)	12 Month Total HAP Usage (tons)

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

**Indiana Department of Environmental Management
Office of Air Quality
and Gary Department of Environmental Affairs**

**Technical Support Document (TSD) for a Minor Permit Revision to a
Federally Enforceable State Operating Permit**

Source Background and Description

Source Name:	Tinplate Partners International, Inc.
Source Location:	700 Chase Street, Gary, Indiana 46404
County:	Lake
SIC Code:	3479
Operation Permit No.:	089-11501-00148
Operation Permit Issuance Date:	March 2, 2000
Permit Revision No.:	089-14247-00148
Permit Reviewer:	ERG/KH

The Office of Air Quality (OAQ) has reviewed a revision application from Tinplate Partners International, Inc. relating to the operation of a stationary sheet metal coating and printing operation.

History

On April 4, 2001, Tinplate Partners International submitted an application to the OAQ requesting to add additional surface coating lines to their existing plant. Tinplate Partners International, Inc. was issued a FESOP on March 2, 2000.

Justification for the Revision

The Federally Enforceable State Operating Permit is being modified through a Minor Permit Revision. This revision is being performed pursuant to 326 IAC 2-8-11.1 for revisions for which the potential to emit is limited to less than twenty-five (25) tons per year of any regulated pollutant, other than hazardous air pollutants, ten (10) tons per year of any single HAP or twenty-five (25) tons per year of any combination of HAPs by limiting the total annual solvent usage.

Existing Approvals

The source was issued a FESOP (F089-11501-00148) on March 2, 2000. The source has since received the following:

- (a) First Administrative Amendment No.: 089-13702, issued on March 13, 2001.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Circular Dimensions	Flow Rate (acfm)	Temperature (°F)
EP-16	sheet metal coating	36.67	2.132	9600	1400
EP-17	sheet metal coating	36.67	2.132	9600	220
EP-18	sheet metal coating	36.67	2.132	9600	1400
EP-19	sheet metal coating	36.67	2.132	9600	220
EP-20	sheet metal coating	36.67	2.132	9600	1400
EP-21	sheet metal coating	36.67	2.132	9600	220

Recommendation

The staff recommends to the Commissioner that the Minor Permit Revision be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on April 4, 2001.

Emission Calculations

See Appendix A (pages 1 through 10) of this document for detailed emissions calculations.

Potential To Emit of Revision

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

Pollutant	Potential To Emit (tons/year)
PM	0.67
PM-10	0.67
SO ₂	0.05
VOC	20,635.33
CO	7.40
NO _x	8.80

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
Single HAP	5182.48
TOTAL	16,692.68

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of VOC are equal to or greater than 25 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

The source has agreed to limit VOC from the entire source to 25 tons per year. Therefore, rule 326 IAC 2-8 will apply.

- (b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is equal to or greater than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination HAPs is greater than or equal to twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

The source has agreed to limit HAPs to less than 10 tons per year for a single HAP and 25 tons per year for a combination of HAPs. Therefore, rule 326 IAC 2-8 will apply.

Limited Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

Process/facility	Potential to Emit (tons/year)							
	PM	PM-10	SO ₂	VOC	CO	NO _x	Single HAP	Total HAP
Entire Source	0.67	0.67	0.05	25	7.4	8.8	10	25
Total Emissions	0.67	0.67	0.05	25	7.4	8.8	10	25

County Attainment Status

The source is located in Lake County.

Pollutant	Status
PM-10	moderate nonattainment
SO ₂	primary nonattainment
NO ₂	attainment
Ozone	severe nonattainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (Nox) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Lake County has been designated as severe nonattainment for ozone.

Federal Rule Applicability

- (a) The three (3) new coating lines are not subject to the New Source Performance Standard, 326 IAC 12, (40 CFR 60.490 through 60.496, Subpart WW, Standards of Performance for the Beverage Can Surface Coating Industry). This rule applies to each exterior base coat operation, each overvarnish coating operation, and each inside spray coating operation in beverage can surface coating lines. Pursuant to 40 CFR 60.491, Definitions, each of the above listed coating operations refer to coating of two-piece beverage can bodies. The coating operation at this source coats metal sheets to be used in the canned food industry. The cans that will be manufactured from the metal sheets are not

beverage cans and are not formed at this source. Therefore, since this source does not engage in the surface coating of beverage cans, this rule does not apply.

- (b) This source is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.430, Subpart QQ, Standards of Performance for the Graphics Arts Industry: Publication Rotogravure Printing), because the printing press (PL-1) at this source is a heatset offset lithographic printing press, not a publication rotogravure printing press. This rule only applies to publication rotogravure printing presses.
- (c) This source is not subject to the requirements of the National Emission Standard for Hazardous Air Pollutants (NESHAP), 326 IAC 14, (40 CFR Part 63.820-63.831, Subpart KK, National Emission Standards for the Printing and Publishing Industry) because this rule only applies to publication rotogravure, product and packaging rotogravure, or wide-web flexographic printing presses. The printing press (PL-1) at this source is a heatset offset lithographic printing press. Therefore, this rule does not apply.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it is located in Lake County and has the potential to emit more than ten (10) tons per year of VOC. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 2-8 (FESOP)

This source will limit the usage of VOC in the six (6) coating lines (existing lines CL-1, CL-2, CL-3 and new lines CL-4, CL-5, CL-6) and the printing presses (existing press PL-1 and new press PL-2) such that source wide VOC emissions are limited to less than 25 tons per year. The source will also limit the usage of any single HAP and any combination of HAPs in the six (6) coating lines (existing lines CL-1, CL-2, CL-3, and new lines CL-4, CL-5, and CL-6) and the printing presses (existing press PL-1 and new press PL-2) such that source wide single HAP and total HAP emissions are limited to less than 10 and 25 tons per year, respectively. The five (5) thermal oxidizers (OX-1, OX-2, OX-3, OX-4, and OX-5) shall also be kept in operation at all times that the six (6) coating lines are in operation and each shall maintain a minimum VOC/HAP capture efficiency of 98% and a minimum VOC/HAP destruction efficiency of 97% for an overall control efficiency of 95.06%. A stack test was performed on OX-1 that demonstrated an overall efficiency of 99.93%. This efficiency has been incorporated into the overall VOC and HAP usage limits, and therefore OX-1 must maintain an overall control efficiency of 99.93%. These limitations shall also render the requirements of 326 IAC 2-3 (Emission Offset) not applicable.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), visible emissions shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements)

This source is subject to the control requirements of 326 IAC 6-1-11.1 for each facility and operation having a potential to emit five (5) tons per year or more of fugitive particulate matter. Pursuant to 326 IAC 6-1-11.1, the following particulate matter emission limitations apply:

- (a) Average instantaneous opacity of fugitive particulate emissions from paved and unpaved roads and parking lots shall not exceed ten percent (10%) opacity; and
- (b) Opacity of any facility or operation not specifically listed in 326 IAC 6-1-11.1 shall meet a 20 percent, three minute opacity standard.

The source will comply with these requirements by:

- (a) Applying water to all roads and parking lots on an as-needed basis.

326 IAC 6-4 (Fugitive Dust Emissions)

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

State Rule Applicability - Individual Facilities

326 IAC 2-4.1-1 (New Source Toxics Control)

This source is not subject to the requirements of this rule because it has accepted federally enforceable permit conditions which will limit the potential to emit of any single HAP and any combination of HAPs to less than 10 and 25 tons per year, respectively.

326 IAC 8-2-3 (Can Coating Operations)

This rule applies to sheet, can, or end coating lines involved in sheet basecoat (interior and exterior) and overvarnish; two-piece can exterior (basecoat and overvarnish); two- and three-piece can interior body spray; two-piece can exterior end (spray or roll coat); and three-piece can sideseam spray and end sealing compound operations. The three (3) coating lines (CL-4, CL-5, and CL-6) are subject to the requirements of 326 IAC 8-2-3 since they are each a metal sheet basecoat and/or overvarnish operation, constructed after July 1, 1990, with actual VOC emissions greater than 15 pounds per day. These coating lines only coat metal sheets to be used in the canned food industry, not cans. Therefore, the three (3) coating lines are only subject to the requirements of 326 IAC 8-2-3(b)(1). Pursuant to this rule, the volatile organic compound (VOC) content of coating delivered to the coating applicator of sheet basecoat (interior and exterior) and overvarnish shall not exceed 2.8 pounds per gallon of coating, excluding water.

To comply with the requirements of this rule pursuant to 326 IAC 8-1-2(c), each of the three (3) thermal oxidizers (OX-3, OX-4, and OX-5) controlling VOC emissions from the three (3) coating lines must maintain a minimum overall control efficiency of 94.97%. This is based on the coating with the highest VOC content in pounds of VOC per gallon of coating solids. See Appendix A, page 3 of 10 for a detailed compliance calculation. However, to limit source wide VOC, single HAP, and total HAP emissions to less than 25, 10, and 25 tons per year, respectively, the three (3) thermal oxidizers (OX-3, OX-4, and OX-5) shall be kept in operation at all times that the three (3) coating lines are in operation and each shall maintain a minimum VOC/HAP capture efficiency of 98% and a minimum VOC/HAP destruction efficiency of 97% for an overall control efficiency of 95.06%.

Pursuant to 089-11501-00148, OX-1 and OX-2 must maintain an overall control efficiency of 95.06%. During a stack test performed on September 21, 1998, OX-1 demonstrated an efficiency of 99.93%. This efficiency has been incorporated into the VOC and HAP usage limits. Therefore, OX-1 is required to maintain an efficiency of 99.93%.

326 IAC 8-5-5 (Miscellaneous Operations: Graphic Arts Operations)

The printing press is not subject to the requirements of this rule because this rule only applies to packaging rotogravure, publication rotogravure and flexographic printing operations. The printing press at this source is a heatset offset lithographic printing press. Therefore, this rule does not apply.

326 IAC 8-6-1 (Organic Solvent Emission Limitations)

This source is not subject to the requirements of this rule since it was constructed after January 1, 1980, and is subject to the requirements of 326 IAC 8-2-3 (Can Coating Operations).

326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark, and Floyd Counties)

This rule does not apply to this source. For a source located in Lake County, this rule applies to those sources that emit or have the potential to emit equal to or greater than 25 tons per year of VOC or those sources that have coating facilities which emit or have the potential to emit equal to or greater than ten (10) tons per year of VOC. The three (3) coating lines (CL-4, CL-5, and CL-6) each have actual VOC emissions of greater than 15 pounds per day. This is greater than the applicability levels of 326 IAC 8-2. These coating facilities also belong to the can coating operations source category under 326 IAC 8-2. Therefore, pursuant to 326 IAC 8-7-2(a)(1) and (3), the emissions from these coating facilities would not be included in determining if the applicability thresholds for this rule are exceeded. Since potential VOC emissions from all other facilities at this source are less than 10 tons per year, this source is not subject to the requirements of this rule.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

1. The three (3) coating lines (CL-4, CL-5, and CL-6) have applicable compliance monitoring conditions as specified below:
 - (a) The temperature of each of the thermal oxidizers (OX-3, OX-4, and OX-5) controlling emissions from each sheet metal coating line must be monitored and recorded continuously. When operating, each thermal oxidizer must maintain a minimum operating temperature of 1300°F and a minimum air flow rate of 9,600 acfm, or a temperature, fan amperage, and duct velocity determined in the most recent compliance stack tests to maintain a minimum VOC/HAP capture efficiency of 98% and a minimum VOC/HAP destruction efficiency of 97% for an overall control efficiency of 95.06%.
 - (b) For each coating, the gallons applied, density, and percent VOC content by weight and volume, must be monitored and recorded monthly.

These monitoring conditions are necessary because each of the three (3) thermal oxidizers for the three (3) sheet metal coating line must operate properly to ensure compliance with 326 IAC 8-2-3 (Can Coating Operations), and 326 IAC 2-8 (FESOP) and to avoid the requirements of 326 IAC 2-3 (Emission Offset) and 326 IAC 2-4.1-1 (New Source Toxics Control).

2. Based on the stack test performed on OX-1 on September 21, 1998, the capture efficiency has increased and as a result, the compliance monitoring conditions in D.1.8(a)(1) for CL-1 has changed. The applicable condition is specified below:

- (a) the one (1) thermal oxidizer, identified as OX-1, shall maintain a minimum operating temperature of 1300°F and a minimum air flow rate of 9,600 acfm, or a temperature, fan amperage, and duct velocity determined in the most recent compliance stack tests to maintain an overall control efficiency of 99.93%.

Proposed Changes

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

- (a) one coating line (CL-1), coating a maximum of 120 metal sheets per minute, consisting of one (1) sheet feeder, one (1) impingement burner (IB-1), one (1) roll coater, one (1) drying oven (DO-1), one (1) natural gas-fired thermal oxidizer (OX-1) for VOC control, with a maximum supplementary fuel heat input rate of 5.7 million British thermal units (MMBtu) per hour, one (1) cooldown zone, one (1) waxer, one (1) stacker, and one (1) bundle turner. The impingement burner exhausts through one (1) stack, EP-1. The roll coater exhausts through the thermal oxidizer, which exhausts through one (1) stack, EP-2. The drying oven exhausts through one (1) stack, EP-15. The cooldown zone exhausts through four (4) stacks, EP-3, EP-12, EP-13, and EP-14. The maximum metal sheet dimensions are 32.4 inches by 39.9 inches;
- (b) one coating line (CL-2), coating a maximum of 110 metal sheets per minute, consisting of one (1) sheet feeder, one (1) roll coater, one (1) drying oven (DO-2), one (1) natural gas-fired thermal oxidizer (OX-2) for VOC control, with a maximum supplementary fuel heat input rate of 11.4 million British thermal units (MMBtu) per hour, one (1) cooldown zone, one (1) waxer, one (1) stacker, and one (1) bundle turner. The roll coater exhausts through the thermal oxidizer, which exhausts through one (1) stack, EP-4. The cooldown zone exhausts through one (1) stack, EP-5. The maximum metal sheet dimensions are 32.4 inches by 39.3 inches;
- (c) one coating line (CL-3), coating a maximum of 110 metal sheets per minute, consisting of one (1) sheet feeder, one (1) roll coater, one (1) drying oven (DO-3), one (1) natural gas-fired thermal oxidizer (OX-2) for VOC control, with a maximum supplementary fuel heat input rate of 11.4 million British thermal units (MMBtu) per hour, one (1) cooldown zone, one (1) waxer, and one (1) stacker, and one (1) bundle turner. The roll coater exhausts through the thermal oxidizer which exhausts through one (1) stack, EP-4. The cooldown zone exhausts through one (1) stack, EP-7. The maximum metal sheet dimensions are 32.4 inches by 39.3 inches; and
- (d) one (1) heatset offset lithographic printing press (PL-1), with a maximum line speed of 233.75 feet per minute and a maximum printing width of 45 inches, exhausting through general ventilation.
- (e) **one coating line (CL-4), coating a maximum of 110 metal sheets per minute, consisting of one (1) sheet feeder, one (1) roll coater, one (1) drying oven (DO-4), one (1) natural gas-fired thermal oxidizer (OX-3) for VOC control, with a maximum supplementary fuel heat input rate of 5.7 million British thermal units (MMBtu) per hour, one (1) cooldown zone, one (1) waxer, one (1) stacker, and one (1) bundle turner. The roll coater exhausts through the thermal oxidizer, which exhausts through one (1) stack, EP-16. The cooldown zone exhausts through one (1) stack, EP-17. The maximum metal sheet dimensions are 32.4 inches by 39.3 inches;**

- (f) one coating line (CL-5), coating a maximum of 110 metal sheets per minute, consisting of one (1) sheet feeder, one (1) roll coater, one (1) drying oven (DO-5), one (1) natural gas-fired thermal oxidizer (OX-4) for VOC control, with a maximum supplementary fuel heat input rate of 5.7 million British thermal units (MMBtu) per hour, one (1) cooldown zone, one (1) waxer, and one (1) stacker, and one (1) bundle turner. The roll coater exhausts through the thermal oxidizer which exhausts through one (1) stack, EP-18. The cooldown zone exhausts through one (1) stack, EP-19. The maximum metal sheet dimensions are 32.4 inches by 39.3 inches; and
- (g) one coating line (CL-6), coating a maximum of 110 metal sheets per minute, consisting of one (1) sheet feeder, one (1) roll coater, one (1) drying oven (DO-6), one (1) natural gas-fired thermal oxidizer (OX-6) for VOC control, with a maximum supplementary fuel heat input rate of 5.7 million British thermal units (MMBtu) per hour, one (1) cooldown zone, one (1) waxer, and one (1) stacker, and one (1) bundle turner. The roll coater exhausts through the thermal oxidizer which exhausts through one (1) stack, EP-20. The cooldown zone exhausts through one (1) stack, EP-21. The maximum metal sheet dimensions are 32.4 inches by 39.3 inches; and
- (h) one (1) heatset offset lithographic printing press (PL-2), with a maximum line speed of 233.75 feet per minute and a maximum printing width of 45 inches, exhausting through general ventilation.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

- (a) one coating line (CL-1), coating a maximum of 120 metal sheets per minute, consisting of one (1) sheet feeder, one (1) impingement burner (IB-1), one (1) roll coater, one (1) drying oven (DO-1), one (1) natural gas-fired thermal oxidizer (OX-1) for VOC control, with a maximum supplementary fuel heat input rate of 5.7 million British thermal units (MMBtu) per hour, one (1) cooldown zone, one (1) waxer, one (1) stacker, and one (1) bundle turner. The impingement burner exhausts through one (1) stack, EP-1. The roll coater exhausts through the thermal oxidizer, which exhausts through one (1) stack, EP-2. The drying oven exhausts through one (1) stack, EP-15. The cooldown zone exhausts through four (4) stacks, EP-3, EP-12, EP-13, and EP-14. The maximum metal sheet dimensions are 32.4 inches by 39.9 inches;
- (b) one coating line (CL-2), coating a maximum of 110 metal sheets per minute, consisting of one (1) sheet feeder, one (1) roll coater, one (1) drying oven (DO-2), one (1) natural gas-fired thermal oxidizer (OX-2) for VOC control, with a maximum supplementary fuel heat input rate of 11.4 million British thermal units (MMBtu) per hour, one (1) cooldown zone, one (1) waxer, one (1) stacker, and one (1) bundle turner. The roll coater exhausts through the thermal oxidizer, which exhausts through one (1) stack, EP-4. The cooldown zone exhausts through one (1) stack, EP-5. The maximum metal sheet dimensions are 32.4 inches by 39.3 inches;
- (c) one coating line (CL-3), coating a maximum of 110 metal sheets per minute, consisting of one (1) sheet feeder, one (1) roll coater, one (1) drying oven (DO-3), one (1) natural gas-fired thermal oxidizer (OX-2) for VOC control, with a maximum supplementary fuel heat input rate of 11.4 million British thermal units (MMBtu) per hour, one (1) cooldown zone, one (1) waxer, and one (1) stacker, and one (1) bundle turner. The roll coater exhausts through the thermal oxidizer which exhausts through one (1) stack, EP-4. The cooldown zone exhausts through one (1) stack, EP-7. The maximum metal sheet dimensions are 32.4 inches by 39.3 inches; and
- (d) one (1) heatset offset lithographic printing press (PL-1), with a maximum line speed of 233.75 feet per minute and a maximum printing width of 45 inches, exhausting through general ventilation.
- (e) **one coating line (CL-4), coating a maximum of 110 metal sheets per minute, consisting of one (1) sheet feeder, one (1) roll coater, one (1) drying oven (DO-4), one (1) natural gas-fired thermal oxidizer (OX-3) for VOC control, with a maximum supplementary fuel heat input rate of 5.7 million British thermal units (MMBtu) per hour, one (1) cooldown zone, one (1) waxer, one (1) stacker, and one (1) bundle turner. The roll coater exhausts through the thermal oxidizer, which exhausts through one (1) stack, EP-16. The cooldown zone exhausts through one (1) stack, EP-17. The maximum metal sheet dimensions are 32.4 inches by 39.3 inches;**

Facility Description [326 IAC 2-8-4(10)] (Continued):

- (f) one coating line (CL-5), coating a maximum of 110 metal sheets per minute, consisting of one (1) sheet feeder, one (1) roll coater, one (1) drying oven (DO-5), one (1) natural gas-fired thermal oxidizer (OX-4) for VOC control, with a maximum supplementary fuel heat input rate of 5.7 million British thermal units (MMBtu) per hour, one (1) cooldown zone, one (1) waxer, and one (1) stacker, and one (1) bundle turner. The roll coater exhausts through the thermal oxidizer which exhausts through one (1) stack, EP-18. The cooldown zone exhausts through one (1) stack, EP-19. The maximum metal sheet dimensions are 32.4 inches by 39.3 inches; and
- (g) one coating line (CL-6), coating a maximum of 110 metal sheets per minute, consisting of one (1) sheet feeder, one (1) roll coater, one (1) drying oven (DO-6), one (1) natural gas-fired thermal oxidizer (OX-6) for VOC control, with a maximum supplementary fuel heat input rate of 5.7 million British thermal units (MMBtu) per hour, one (1) cooldown zone, one (1) waxer, and one (1) stacker, and one (1) bundle turner. The roll coater exhausts through the thermal oxidizer which exhausts through one (1) stack, EP-20. The cooldown zone exhausts through one (1) stack, EP-21. The maximum metal sheet dimensions are 32.4 inches by 39.3 inches; and
- (h) one (1) heatset offset lithographic printing press (PL-2), with a maximum line speed of 233.75 feet per minute and a maximum printing width of 45 inches, exhausting through general ventilation.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-3]

- (a) Pursuant to 326 IAC 8-2-3 (Can Coating Operations), no owner or operator of a can coating line subject to this section, may cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of two and eight-tenths (2.8) pounds per gallon excluding water, delivered to the coating applicator from sheet basecoat (interior and exterior) and overvarnish coating lines. This limitation applies to the ~~three (3)~~**six (6)** coating lines listed above (CL-1, CL-2, ~~and~~ CL-3, **CL-4, CL-5, and CL-6**).

D.1.2 FESOP Limit [326 IAC 2-8]

- (a) The input of VOC to the ~~three (3)~~**six (6)** coating lines (CL-1, CL-2, ~~and~~ CL-3, **CL-4, CL-5, and CL-6**) and the printing presses (PL-1 **and** PL-2), including coatings, dilution solvents, and cleaning solvents shall not exceed 494.7 tons per twelve (12) consecutive month period, rolled on a monthly basis. **For every ton of VOC used in CL-1, the total usage limit shall be reduced by 0.014 tons, and for every ton of VOC used in CL-2, CL-3, CL-4, CL-5, or CL-6, the total usage limit shall be reduced by 1.0 tons.** This usage limitation will then be equivalent to a VOC emission limitation of 24.44 tons per year. This usage limit is required to limit the source wide potential to emit of VOC to less than 25 tons per year. Compliance with this limit makes 326 IAC 2-3 (Emission Offset) and 326 IAC 2-7 (Part 70 Permit Program) not applicable.

- (b) The input of any single HAP and any combination of HAPs to the ~~three (3)~~**six (6)** coating lines (CL-1, CL-2, ~~and~~ CL-3, **CL-4, CL-5, and CL-6**) and the printing presses (PL-1 and **PL-2**), including coatings, dilution solvents, and cleaning solvents shall not exceed 200.4 and 500.8 tons per twelve (12) consecutive month period, rolled on a monthly basis, respectively. **For every ton of HAP used in CL-1, the total usage limit shall be reduced by 0.014 tons, and for every ton of HAP used in CL-2, CL-3, CL-4, CL-5 or CL-6, the total usage limit shall be reduced by 1.0 tons.** This usage limitation will then be equivalent to a single HAP emission limitation of 9.9 tons per year and a total HAP emission limitation of 24.74 tons per year. This usage limit is required to limit the source wide potential to emit of any single HAP and any combination of HAPs to less than 10 and 25 tons per year, respectively. Compliance with this limit makes 326 IAC 2-7 (Part 70 Permit Program) not applicable.

Compliance Determination Requirements

D.1.4 Testing Requirements [326 IAC 2-8-5(a)(1), (4)][326 IAC 2-1.1-11]

During the period between 12 and 18 months after issuance of this permit, the Permittee shall perform VOC testing on the ~~two (2)~~**five (5)** oxidizers (OX-1, ~~and~~ OX-2, **OX-3, OX-4, and OX-5**) to determine control efficiency and the operating parameters necessary to maintain 95.06% overall control efficiency, utilizing methods as listed in 326 IAC 8-1-4 (Testing Procedures), or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

D.1.7 Volatile Organic Compounds (VOC)

- (a) **The one (1) thermal oxidizer (OX-1) shall be kept in operation at all times that the one (1) coating line CL-1 is in operation and shall maintain an overall control efficiency of 99.93%. This efficiency exceeds the minimum overall control efficiency required by the rule 326 IAC 8-1-2(c) to comply with 326 IAC 8-2-3.**
- (b) Pursuant to CP 089-2298-00148, issued June 17, 1992, ~~the one (1) thermal oxidizer and the one (1) oxidizer (OX-1 and OX-2)~~ shall be kept in operation at all times that the ~~three (3)~~ **two (2)** coating lines (~~CL-1, CL-2, and CL-3~~) are in operation and ~~each~~ shall maintain an overall control efficiency of 95.06%. This efficiency exceeds the minimum overall control efficiency required by the rule 326 IAC 8-1-2(c) to comply with 326 IAC 8-2-3.
- (c) **The three (3) thermal oxidizers (OX-3, OX-4, and OX-5) shall be kept in operation at all times that the three (3) coating lines (CL-4, CL-5, and CL-6) are in operation and each shall maintain an overall control efficiency of 95.06%. This efficiency exceeds the minimum overall control efficiency required by the rule 326 IAC 8-1-2(c) to comply with 326 IAC 8-2-3.**

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.8 Volatile Organic Compound and Hazardous Air Pollutant Control

- (a) When operating, the following conditions shall apply to the ~~two (2)~~**five (5)** oxidizers:
- (1) the one (1) thermal oxidizer, identified as OX-1, shall maintain a minimum operating temperature of 1300°F and a minimum air flow rate of 9,600 acfm, or a temperature, fan amperage, and duct velocity determined in the most recent compliance stack tests to maintain an overall control efficiency of ~~95.06~~ **99.93%**; and
- (2) the ~~one (1)~~**four (4)** oxidizers, identified as OX-2, **OX-3, OX-4, and OX-5**, shall maintain a minimum operating temperature of 1300°F and minimum air flow rates of 8,500 acfm when one (1) coating line is in operation and 17,000 acfm when both coating lines are in operation, or a temperature, fan amperage, and duct velocity determined in the most recent compliance stack tests to maintain an overall control efficiency of 95.06%.

- (b) The temperature of the burner of each of the oxidizers shall be continuously monitored and recorded whenever any of the facilities are in operation.
- (c) Compliance with this condition shall satisfy the requirements of 326 IAC 8-2-3.
- (d) Pursuant to 326 IAC 8-1-2(c), the minimum overall control efficiency required for the ~~two (2)~~**five (5)** oxidizers controlling VOC emissions from the ~~three (3)~~**six (6)** coating lines necessary to comply with the VOC content limit of 2.8 pounds per gallon excluding water is calculated as follows:

$$O = \frac{V - E}{V} \times 100$$

- where: O = Equivalent percent overall control efficiency of the capture system and control device.
- V = The actual VOC content of the coating in pounds of VOC per gallon of coating solids as applied.
- E = Equivalent emission limit in pounds of VOC per gallon of coating solids as applied.

E is calculated using the following formula:

$$E = \frac{L}{1 - L/D}$$

- where: L = Applicable 326 IAC 8-2-3 emission limit in pounds of VOC per gallon of coating.
- D = Density of VOC in coating in pounds per gallon of VOC. A solvent density of 7.36 pounds of VOC per gallon of coating shall be used to determine equivalent pounds of VOC per gallon of coating solids for the applicable emission limit.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
and DIVISION OF AIR POLLUTION CONTROL**

FESOP Quarterly Report

Source Name: Tinplate Partners International, Inc.
Source Address: 700 Chase Street, Gary, Indiana 46404
Mailing Address: 700 Chase Street, Gary, Indiana 46404
FESOP No.: F089-11501-00148
Facility: ~~Three (3)~~ **Six (6)** coating lines (CL-1, CL-2, ~~and CL-3~~, **CL-4, CL-5, and CL-6**) and printing presses (PL-1 **and PL-2**)
Parameter: VOC Usage
Limit: The input of VOC to the ~~three (3)~~ **six (6)** coating lines (CL-1, CL-2, ~~and CL-3~~, **CL-4, CL-5, and CL-6**) and the printing presses (PL-1 **and PL-2**), including coatings, dilution solvents, and cleaning solvents shall not exceed 494.7 tons per twelve (12) consecutive month period, rolled on a monthly basis. **For every ton of VOC used in CL-1, the total usage limit shall be reduced by 0.014 tons, and for every ton of VOC used in CL-2, CL-3, CL-4, CL-5, or CL-6, the total usage limit shall be reduced by 1.0 tons.** This usage limitation will then be equivalent to a VOC emission limitation of 24.44 tons per year.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	VOC Usage This Month (tons)	VOC Usage Previous 11 Months (tons)	12 Month Total VOC Usage (tons)

- 9 No deviation occurred in this quarter.
- 9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
and DIVISION OF AIR POLLUTION CONTROL**

FESOP Quarterly Report

Source Name: Tinplate Partners International, Inc.
Source Address: 700 Chase Street, Gary, Indiana 46404
Mailing Address: 700 Chase Street, Gary, Indiana 46404
FESOP No.: F089-11501-00148
Facility: ~~Three (3)~~ **Six (6)** coating lines (CL-1, CL-2, ~~and~~ CL-3, **CL-4, CL-5, and CL-6**) and printing presses (PL-1 **and** PL-2)
Parameter: Single HAP Usage
Limit: The input of any single HAP to the ~~three (3)~~ **six (6)** coating lines (CL-1, CL-2, ~~and~~ CL-3, **CL-4, CL-5, and CL-6**) and the printing presses (PL-1 **and** PL-2), including coatings, dilution solvents, and cleaning solvents shall not exceed 200.4 tons per twelve (12) consecutive month period, rolled on a monthly basis. **For every ton of HAP used in CL-1, the total usage limit shall be reduced by 0.014 tons, and for every ton of HAP used in CL-2, CL-3, CL-4, CL-5 or CL-6, the total usage limit shall be reduced by 1.0 tons.** This usage limitation will then be equivalent to a single HAP emission limitation of 9.9 tons per year.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	Single HAP Usage This Month (tons)	Single HAP Usage Previous 11 Months (tons)	12 Month Total Single HAP Usage (tons)

- 9 No deviation occurred in this quarter.
- 9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
and DIVISION OF AIR POLLUTION CONTROL**

FESOP Quarterly Report

Source Name: Tinplate Partners International, Inc.
Source Address: 700 Chase Street, Gary, Indiana 46404
Mailing Address: 700 Chase Street, Gary, Indiana 46404
FESOP No.: F089-11501-00148
Facility: ~~Three (3)~~ **Six (6)** coating lines (CL-1, CL-2, ~~and CL-3~~, **CL-4, CL-5, and CL-6**)
and printing presses (PL-1 **and PL-2**)
Parameter: Total HAP Usage
Limit: The input of any combination of HAPs to the three (3) coating lines (CL-1, CL-2, ~~and CL-3~~, **CL-4, CL-5, and CL-6**) and the printing presses (PL-1 **and PL-2**), including coatings, dilution solvents, and cleaning solvents shall not exceed 500.8 tons per twelve (12) consecutive month period, rolled on a monthly basis. **For every ton of HAP used in CL-1, the total usage limit shall be reduced by 0.014 tons, and for every ton of HAP used in CL-2, CL-3, CL-4, CL-5 or CL-6, the total usage limit shall be reduced by 1.0 tons.** This usage limitation will then be equivalent to a total HAP emission limitation of 24.74 tons per year.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	Total HAP Usage This Month (tons)	Total HAP Usage Previous 11 Months (tons)	12 Month Total HAP Usage (tons)

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Conclusion

This permit revision shall be subject to the conditions of the attached proposed FESOP Permit No. 089-11501-00148.

Appendix A: Emission Calculations

Company Name: Tinplate Partners International, Inc.
Address City IN Zip: 700 Chase Street, Gary, Indiana 46404
Operation Permit No.: 089-14247
Plt ID: 089-00148
Reviewer: ERG/KH
Date: 04/20/2001

Total Potential To Emit (tons/year)				
Emissions Generating Activity				
Pollutant	Surface Coating	Printing Operation	Natural Gas Combustion	TOTAL
PM	0.00	0.00	0.67	0.67
PM10	0.00	0.00	0.67	0.67
SO2	0.00	0.00	0.05	0.05
NOx	0.00	0.00	8.80	8.80
VOC	20,625.79	9.06	0.48	20,635.33
CO	0.00	0.00	7.40	7.40
total HAPs	16,688.34	4.17	0.17	16,692.68
worst case single HAP	5,178.81	3.51	0.16	5,182.48

Total emissions based on rated capacities at 8,760 hours/year.

For the purposes of determining Title V applicability, PM10 (not PM) is the regulated pollutant in consideration

Limited Potential to Emit (tons/year)

Emissions Generating Activity	
Pollutant	TOTAL
PM	0.67
PM10	0.67
SO2	0.05
NOx	8.80
VOC	25.00
CO	7.40
total HAPs	25.00
worst case single HAP	10.00

Total emissions based on rated capacities at 8,760 hours/year.

For the purposes of determining Title V applicability, PM10 (not PM) is the regulated pollutant in consideration

The source is limited to 25 tpy VOC, 10 tpy single HAP, and 25 tpy combination of HAPs, making 326 IAC 2-7 not applicable.

Appendix A: Emissions Calculations

VOC and Particulate
From Surface Coating Operations

Company Name: Tinplate Partners International, Inc.
Address City IN Zip: 700 Chase Street, Gary, Indiana 46404
Operation Permit No.: 089-14247
Pit ID: 089-00148
Reviewer: ERG/KH
Date: 04/20/2001

Material	Density (Lb/Gal)	Weight % Volatile (H2O& Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential ton/yr	lb VOC /gal solids	Transfer Efficiency
Coating Lines #4, #5, and #6 (CL-4, CL-5, and CL-6)																
22-935A	7.80	80.30%	0.0%	80.3%	0.0%	16.20%	0.0041	19800.0	6.26	6.26	507.22	12173.34	2221.64	0.00	38.66	100%
297-C-915	7.35	85.50%	0.0%	85.5%	0.0%	7.00%	0.0041	19800.0	6.28	6.28	508.91	12213.87	2229.03	0.00	89.78	100%
53-A-49B	8.00	78.00%	0.0%	78.0%	0.0%	13.00%	0.0041	19800.0	6.24	6.24	505.33	12127.86	2213.34	0.00	48.00	100%
53-V-78	7.50	83.00%	0.0%	83.0%	0.0%	14.00%	0.0041	19800.0	6.23	6.23	504.11	12098.71	2208.01	0.00	44.46	100%
6661-011	7.23	90.10%	0.0%	90.1%	0.0%	9.90%	0.0041	19800.0	6.51	6.51	527.54	12660.85	2310.60	0.00	65.80	100%
Hi Sol 10	7.30	100.00%	0.0%	100.0%	0.0%	0.00%	0.0041	19800.0	7.30	7.30	591.17	14188.05	2589.32	0.00	ERR	100%
Glycol Ether EB	7.51	100.00%	0.0%	100.0%	0.0%	0.00%	0.0041	19800.0	7.51	7.51	608.17	14596.20	2663.81	0.00	ERR	100%
Isophorone	7.68	100.00%	0.0%	100.0%	0.0%	0.00%	0.0041	19800.0	7.68	7.68	621.94	14926.60	2724.10	0.00	ERR	100%
Mineral Spirits	6.56	100.00%	0.0%	100.0%	0.0%	0.00%	0.0041	19800.0	6.56	6.56	531.24	12749.81	2326.84	0.00	ERR	100%
MIBK	6.67	100.00%	0.0%	100.0%	0.0%	0.00%	0.0041	19800.0	6.67	6.67	540.15	12963.60	2365.86	0.00	ERR	100%
Dibasic Ester 1	9.10	100.00%	0.0%	100.0%	0.0%	0.00%	0.0041	19800.0	9.10	9.10	736.94	17686.47	3227.78	0.00	ERR	100%
54 Epoxy Reducer	6.79	100.00%	0.0%	100.0%	0.0%	0.00%	0.0041	19800.0	6.79	6.79	549.87	13196.83	2408.42	0.00	ERR	100%
Emissions from Printing Press (See page 7 of 10 for detailed calculations)											2.07	49.64	9.06			
Total State Potential Emissions:											4709.08	113018.04	20625.79	0.00		

* This source has accepted a source-wide limit on VOC of 25 tpy.

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Sum of worst case coatings + sum of all clening solvents used.
Emissions from the five worst case coatings are represented here. All coatings are mutually exclusive.

Appendix A: Emissions Calculations
326 IAC 8-1-2 and 326 IAC 8-2-3 Compliance Calculation

Company Name: Tinplate Partners International, Inc.
Address City IN Zip: 700 Chase Street, Gary, Indiana 46404
Operation Permit No.: 089-14247
Pit ID: 089-00148
Reviewer: ERG/KH
Date: 04/20/2001

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Pounds VOC per gallon of coating less water	L	D	E	V	O
								326 IAC 8-2-5 Emission Limit (lbs VOC/gal coating less water)	Density of VOC in coating (lbs VOC/gal VOC)	326 IAC 8-1-2(b) Equivalent Emission Limit (lbs VOC/gal coating solids)	Actual VOC content of the coating (lb VOC/gal coating solids)	Required Overa Control Efficiency per 326 IAC 8-1-2(c)
Coating Lines #4, #5, and #6 (CL-4, CL-5, and CL-6)												
22-935A	7.80	80.30%	0.0%	80.3%	0.0%	16.20%	6.26	2.8	7.36	4.52	38.66	88.31%
297-C-915	7.35	85.50%	0.0%	85.5%	0.0%	7.00%	6.28	2.8	7.36	4.52	89.78	94.97%
53-A-49B	8.00	78.00%	0.0%	78.0%	0.0%	13.00%	6.24	2.8	7.36	4.52	48.00	90.58%
53-V-78	7.50	83.00%	0.0%	83.0%	0.0%	14.00%	6.23	2.8	7.36	4.52	44.46	89.84%
6661-011	7.23	90.10%	0.0%	90.1%	0.0%	9.90%	6.51	2.8	7.36	4.52	65.80	93.13%

*The above calculation demonstrates that each of the three (3) thermal oxidizers (OX-1, OX-2, and OX-3) controlling emissions from the three (3) coating lines must operate at a minimum overall control efficiency of 94.97% to comply with 326 IAC 8-1-2 and 326 IAC 8-2-3. Pursuant to CP 089-2298-00148, issued on June 17, 1992, the existing thermal oxidizer (OX-1) must operate at an overall control efficiency of 95.06% to comply with 326 IAC 8-2-3. The two (2) new thermal oxidizers (OX-2 and OX-3) will also be required to operate at an overall control efficiency of 95.06%. Therefore, this source will be in compliance with 326 IAC 8-1-2 and 326 IAC 8-2-3.

Appendix A: Emissions Calculations
Surface Coating HAP Emission Calculations, Page 1 of 3

Company Name: Tinplate Partners International, Inc.
Address City IN Zip: 700 Chase Street, Gary, Indiana 46404
Operation Permit No.: 089-14247
Plt ID: 089-00148
Reviewer: ERG/KH
Date: 04/20/2001

Material	Density (Lb/Gal)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Formaldehyde	Weight % Ethylbenzene	Weight % Glycol Ethers	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Ethylbenzene Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)
Coating Lines #4, #5, and #6 (CL-4, CL-5, and CL-6)													
9-37-700	9.59	0.0041	19800.0	0.00%	0.00%	0.00%	0.00%	5.50%	0.00	0.00	0.00	0.00	187.09
12-161-E	11.83	0.0041	19800.0	0.10%	0.00%	0.10%	0.00%	7.50%	4.20	0.00	4.20	0.00	314.71
9012-112	9.22	0.0041	19800.0	4.76%	0.00%	0.10%	0.76%	4.00%	155.67	0.00	3.11	24.85	130.81
40-881	7.84	0.0041	19800.0	1.43%	0.00%	0.00%	0.00%	0.51%	39.77	0.00	0.00	0.00	14.18
40-284-A	8.03	0.0041	19800.0	2.17%	0.00%	0.11%	0.00%	88.30%	61.81	0.00	3.13	0.00	2515.01
H236-19	10.98	0.0041	19800.0	0.10%	0.00%	0.00%	0.00%	46.76%	3.70	0.00	0.00	0.00	1821.12
643-E-164	8.42	0.0041	19800.0	30.00%	0.00%	1.00%	10.00%	30.00%	895.98	0.00	29.87	298.66	895.98
666-C-180	7.20	0.0041	19800.0	70.00%	0.00%	0.00%	20.00%	0.00%	1787.69	0.00	0.00	510.77	0.00
640-C-300	8.07	0.0041	19800.0	38.10%	0.00%	0.95%	9.52%	33.33%	1090.59	0.00	27.19	272.50	954.05
53-R-44	8.40	0.0041	19800.0	2.00%	1.20%	0.00%	0.00%	9.50%	59.59	35.75	0.00	0.00	283.05
3846-910	8.40	0.0041	19800.0	4.40%	0.00%	0.60%	1.40%	0.00%	131.10	0.00	17.88	41.71	0.00
6661-011	7.23	0.0041	19800.0	75.00%	0.00%	0.00%	15.00%	0.00%	1923.37	0.00	0.00	384.67	0.00
40-576A	8.51	0.0041	19800.0	1.52%	0.00%	0.00%	0.00%	4.76%	45.88	0.00	0.00	0.00	143.68
Hi Sol 10	7.30	0.0041	19800.0	7.00%	0.00%	0.00%	0.00%	0.00%	181.25	0.00	0.00	0.00	0.00
666-W-123	12.58	0.0041	19800.0	38.50%	0.00%	0.00%	7.90%	15.80%	1717.92	0.00	0.00	352.51	705.02
Glycol Ether EB	7.51	0.0041	19800.0	0.00%	0.00%	0.00%	0.00%	100.00%	0.00	0.00	0.00	0.00	2663.81
Isophorone	7.68	0.0041	19800.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Mineral Spirits	6.56	0.0041	19800.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
MIBK	6.67	0.0041	19800.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Dibasic Ester 1	9.10	0.0041	19800.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
54 Epoxy Reducer	6.79	0.0041	19800.0	25.00%	0.00%	0.00%	5.00%	0.00%	602.11	0.00	0.00	120.42	0.00
Potential HAP Emissions:									2525.47	35.75	29.87	631.19	5178.81

* This source has accepted a source-wide limit on single HAP of 10 tpy and combination of HAPs of 25 tpy.

Sum of Potential HAP Emissions: **8401.09**

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Controlled HAP emission rate (tons/yr) = Potential HAP emission rate (tons/yr) * (1 - VOC Control Efficiency) * Material Usage Limitation (%)

Appendix A: Emissions Calculations
Surface Coating HAP Emission Calculations, Page 2 of 3

Company Name: Tinplate Partners International, Inc.
Address City IN Zip: 700 Chase Street, Gary, Indiana 46404
Operation Permit No.: 089-14247
Pit ID: 089-00148
Reviewer: ERG/KH
Date: 04/20/2001

Material	Density (Lb/Gal)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Weight % Benzene	Weight % MIBK	Weight % Naphthalene	Weight % Cumene	Weight % Isophorone	Benzene Emissions (ton/yr)	MIBK Emissions (ton/yr)	Naphthalene Emissions (ton/yr)	Cumene Emissions (ton/yr)	Isophorone Emissions (ton/yr)
Coating Lines #4, #5, and #6 (CL-4, CL-5, and CL-6)													
9-37-700	9.59	0.0041	19800.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
12-161-E	11.83	0.0041	19800.0	0.00%	0.00%	2.20%	0.00%	0.00%	0.00	0.00	92.31	0.00	0.00
9012-112	9.22	0.0041	19800.0	0.00%	1.43%	0.00%	0.00%	8.67%	0.00	46.77	0.00	0.00	283.54
40-881	7.84	0.0041	19800.0	0.00%	28.00%	1.83%	0.00%	33.29%	0.00	778.64	50.89	0.00	925.75
40-284-A	8.03	0.0041	19800.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
H236-19	10.98	0.0041	19800.0	0.00%	0.00%	4.00%	0.00%	0.00%	0.00	0.00	155.78	0.00	0.00
643-E-164	8.42	0.0041	19800.0	0.10%	0.00%	0.00%	0.00%	0.00%	2.99	0.00	0.00	0.00	0.00
666-C-180	7.20	0.0041	19800.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
640-C-300	8.07	0.0041	19800.0	0.10%	0.00%	0.00%	0.00%	0.00%	2.72	0.00	0.00	0.00	0.00
53-R-44	8.40	0.0041	19800.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
3846-910	8.40	0.0041	19800.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
6661-011	7.23	0.0041	19800.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
40-576A	8.51	0.0041	19800.0	0.00%	0.00%	2.03%	0.00%	0.00%	0.00	0.00	61.28	0.00	0.00
Hi Sol 10	7.30	0.0041	19800.0	0.00%	0.00%	0.00%	3.00%	0.00%	0.00	0.00	0.00	77.68	0.00
666-W-123	12.58	0.0041	19800.0	0.10%	0.00%	0.00%	0.00%	0.00%	4.46	0.00	0.00	0.00	0.00
Glycol Ether EB	7.51	0.0041	19800.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Isophorone	7.68	0.0041	19800.0	0.00%	0.00%	0.00%	0.00%	100.00%	0.00	0.00	0.00	0.00	2724.10
Mineral Spirits	6.56	0.0041	19800.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
MIBK	6.67	0.0041	19800.0	0.00%	100.00%	0.00%	0.00%	0.00%	0.00	2365.86	0.00	0.00	0.00
Dibasic Ester 1	9.10	0.0041	19800.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
54 Epoxy Reducer	6.79	0.0041	19800.0	0.00%	50.00%	0.00%	0.00%	0.00%	0.00	1204.21	0.00	0.00	0.00
Potential HAP Emissions:									4.46	4348.71	155.78	77.68	3649.85

* This source has accepted a source-wide limit on single HAP of 10 tpy and combination of HAPs of 25 tpy.

Sum of Potential HAP Emissions: **8236.49**

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs
Controlled HAP emission rate (tons/yr) = Potential HAP emission rate (tons/yr) * (1 - VOC Control Efficiency) * Material Usage Limitation (%)

Appendix A: Emissions Calculations
Surface Coating HAP Emission Calculations, Page 3 of 3

Company Name: Tinplate Partners International, Inc.
Address City IN Zip: 700 Chase Street, Gary, Indiana 46404
Operation Permit No.: 089-14247
Plt ID: 089-00148
Reviewer: ERG/KH
Date: 04/20/2001

Material	Density (Lb/Gal)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Weight % Vinyl Acetate	Weight % Hexamethylene Diisocyanate	Weight % Chromium Compounds	Weight % Lead Compounds	Weight % Ethyl Acrylate	Weight % Phenol	Vinyl Acetate Emissions (ton/yr)	Hexamethylene Diisocyanate Emissions (ton/yr)	Chromium Compounds Emissions (ton/yr)	Lead Compounds Emissions (ton/yr)	Ethyl Acrylate Emissions (ton/yr)	Phenol Emissions (ton/yr)
Coating Lines #4, #5, and #6 (CL-4, CL-5, and CL-6)															
9-37-700	9.59	0.0041	19800.0	0.00%	0.00%	0.10%	0.10%	0.00%	0.00%	0.00	0.00	3.40	3.40	0.00	0.00
12-161-E	11.83	0.0041	19800.0	0.00%	0.00%	0.00%	0.00%	0.10%	0.00%	0.00	0.00	0.00	0.00	4.20	0.00
9012-112	9.22	0.0041	19800.0	0.10%	0.00%	0.00%	0.00%	0.00%	0.00%	3.11	0.00	0.00	0.00	0.00	0.00
40-881	7.84	0.0041	19800.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
40-284-A	8.03	0.0041	19800.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
H236-19	10.98	0.0041	19800.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
643-E-164	8.42	0.0041	19800.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
666-C-180	7.20	0.0041	19800.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
640-C-300	8.07	0.0041	19800.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
53-R-44	8.40	0.0041	19800.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
3846-910	8.40	0.0041	19800.0	0.00%	0.00%	0.00%	0.00%	0.00%	1.20%	0.00	0.00	0.00	0.00	0.00	35.75
6661-011	7.23	0.0041	19800.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
40-576A	8.51	0.0041	19800.0	0.00%	0.03%	0.00%	0.00%	0.00%	0.00%	0.00	0.91	0.00	0.00	0.00	0.00
Hi Sol 10	7.30	0.0041	19800.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
666-W-123	12.58	0.0041	19800.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
Glycol Ether EB	7.51	0.0041	19800.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
Isophorone	7.68	0.0041	19800.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
Mineral Spirits	6.56	0.0041	19800.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
MIBK	6.67	0.0041	19800.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
Dibasic Ester 1	9.10	0.0041	19800.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
54 Epoxy Reducer	6.79	0.0041	19800.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
Potential HAP Emissions:										3.11	0.91	3.40	3.40	4.20	35.75

* This source has accepted a source-wide limit on single HAP of 10 tpy and combination of HAPs of 25 tpy.

Sum of Potential HAP Emissions: **50.77**

Total Sum of Potential HAP Emissions: **16688.34**

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs
Controlled HAP emission rate (tons/yr) = Potential HAP emission rate (tons/yr) * (1 - VOC Control Efficiency) * Material Usage Limitation (%)

**Appendix A: Emissions Calculations
VOC From Printing Press Operations**

Company Name: Tinplate Partners International, Inc.
Address City IN Zip: 700 Chase Street, Gary, Indiana 46404
Operation Permit No.: 089-14247
Plt ID: 089-00148
Reviewer: ERG/KH
Date: 04/20/2001

THROUGHPUT			
Press I.D.	MAXIMUM LINE SPEED (FEET/MIN)	MAXIMUM PRINT WIDTH (INCHES)	MMin^2/YEAR
PL-2	233.75	45	66344

INK VOCS					
Ink Name	Maximum Coverage '(lbs/MMin^2)	Weight % Volatiles	Flash Off %	Throughput (MMin^2/Year)	Emissions* (TONS/YEAR)
1W20024	3.21	9.64%	80.00%	66344	8.21
1N20019	3.21	1.96%	80.00%	66344	1.67

Fountain Sol'n/Cleaning Solvent VOC					
Solvent Name	Maximum Coverage '(lbs/MMin^2)	Weight % Volatiles	Flash Off %	Throughput (MMin^2/Year)	Emissions* (TONS/YEAR)
890023 Fountain Solution	0.03	6.80%	80.00%	66344	0.05
54 Epoxy Reducer	0.03	100.00%	80.00%	66344	0.80
Hi-Sol 10	0.03	100.00%	80.00%	66344	0.80
Glycol Ether EB	0.03	100.00%	80.00%	66344	0.80
Acetone	0.03	0.00%	80.00%	66344	0.00
Isophorone	0.03	100.00%	80.00%	66344	0.80
3002530 Mineral Spirits	0.03	100.00%	80.00%	66344	0.80
3620000 Methyl Isobutyl	0.03	100.00%	80.00%	66344	0.80
3228000 Dibasic Ester 1	0.03	100.00%	80.00%	66344	0.80

Total VOC Emissions =	9.06 Ton/yr
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METHODOLOGY

Throughput = Maxium line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8760 hours per year = MMin^2 per Year

VOC = Maximum Coverage pounds per MMin^2 * Weight percentage volatiles (organics & water minus water) * Flash off * Throughput * Tons per 2000 pounds = Tons per Year

Total Emissions = Worst Case Ink Emissions + Fountain Solution Emissions + Worst Case Cleaning Solvent Emissions

NOTE: HEAT SET OFFSET PRINTING HAS AN ASSUMED FLASH OFF OF 80%. OTHER TYPES OF PRINTERS HAVE A FLASH OFF OF 100%.

(Source -OAQPS Draft Guidance, "Control of Volatile Organic Compound Emissions from Offset Lithographic Printing (9/93))

Appendix A: Emissions Calculations
HAP From Printing Press Operations

Company Name: Tinplate Partners International, Inc.
Address City IN Zip: 700 Chase Street, Gary, Indiana 46404
Operation Permit No.: 089-14247
Plt ID: 089-00148
Reviewer: ERG/KH
Date: 04/20/2001

THROUGHPUT		
Press I.D.	MAXIMUM LINE SPEED (FEET/MIN)	MAXIMUM PRINT WIDTH (INCHES)
PL-2	233.75	45
		MMin^2/YEAR
		66344

INK HAPS						
Ink Name	HAP	Weight % HAP	Maximum Coverage '(lbs/MMin^2)	Flash Off %	Throughput (MMin^2/Year)	Emissions* (TONS/YEAR)
Generic Valspar Toba Blend*	Cyanide Compounds	3.30%	3.21	80.00%	66344	3.51
1N20019	Manganese Compounds	1.10%	3.21	80.00%	66344	1.17

Fountain Sol'n/Cleaning Solvent HAP						
Solvent Name	HAP	Weight % HAP	Maximum Coverage '(lbs/MMin^2)	Flash Off %	Throughput (MMin^2/Year)	Emissions* (TONS/YEAR)
890023 Fountain Solution	Propylene Glycol	5.00%	0.03	80.00%	66344	0.05
Clean Up Solvent (Worst Case)	Isophorone	25.00%	0.03	80.00%	66344	0.25
	2-Butoxyethanol (Glycol Ether)	60.54%	0.03	80.00%	66344	0.60
	Aromatic Naphtha	50.00%	0.03	80.00%	66344	0.50
	Xylene	60.00%	0.03	80.00%	66344	0.60
	Cumene	1.60%	0.03	80.00%	66344	0.02
	Ethylbenzene	20.00%	0.03	80.00%	66344	0.20
	MIBK	23.00%	0.03	80.00%	66344	0.23

Total HAP Emissions =	4.17 tons/yr
Worst Case Single HAP Emissions =	3.51 tons/yr
Total Limited HAP Emissions** =	0.10 tons/yr
Worst Case Single HAP Limited Emissions =	0.08 tons/yr

*Note: This is from a generic MSDS for the Toba Blend inks. Tinplate is not yet certain which Toba Blend inks will be used. This represents the worst case HAP content.

** Limited HAP emissions include an overall 2.31% annual material usage limitation for the three (3) coating lines and the printing press so that source wide VOC emissions are limited below 25 tons/yr, single HAP emissions are limited below 10 tons/yr, and total HAP emissions are limited below 25 tons per year to avoid the requirements of 326 IAC 2-7 (Title V).

METHODOLOGY

Throughput = Maximum line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8760 hours per year = MMin^2 per Year

HAP = Maximum Coverage pounds per MMin^2 * Weight percentage HAP * Flash off * Throughput * Tons per 2000 pounds = Tons per Year

Total Emissions = Worst Case Ink Emissions + Fountain Solution Emissions + Worst Case Cleaning Solvent Emissions

NOTE: HEAT SET OFFSET PRINTING HAS AN ASSUMED FLASH OFF OF 80%. OTHER TYPES OF PRINTERS HAVE A FLASH OFF OF 100%.

(Source -OAQPS Draft Guidance, "Control of Volatile Organic Compound Emissions from Offset Lithographic Printing (9/93))

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Page 9 of 10 TSD App A

Company Name: Tinplate Partners International, Inc.
Address City IN Zip: 700 Chase Street, Gary, Indiana 46404
Operation Permit No.: 089-14247
Pit ID: 089-00148
Reviewer: ERG/KH
Date: 04/20/2001

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

20.1

176.1

Heat Input Capacity includes: Three (3) drying ovens, each rated at 1.0 MMBtu/hr, and supplementary fuel inputs of 5.7 MMBtu/hr for the thermal oxidizers, OX-3, OX-4 and OX-5.

Pollutant

	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.67	0.67	0.05	8.80	0.48	7.40

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 5 for HAPs emissions calculations.

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions**

Page 10 of 10 TSD App A

Company Name: Tinline Partners International, Inc.
Address City IN Zip: 700 Chase Street, Gary, Indiana 46404
Operation Permit No.: 089-14247
Pit ID: 089-00148
Reviewer: ERG/KH
Date: 04/20/2001

HAPs - Organics

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	1.849E-04	1.056E-04	6.603E-03	1.585E-01	2.993E-04

0.16614355

HAPs - Metals

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	4.402E-05	9.684E-05	1.233E-04	3.345E-05	1.849E-04

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.